Snowden Bridge (Nohly Bridge)
Spanning the Missouri River
near the North Dakota Border
Nohly Vicinity
Richland County
Montana

HAER No. MT-27

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20240

HISTORIC AMERICAN ENGINEERING RECORD

Snowden Bridge (Nohly Bridge)

MT-27

Location: Spanning the Missouri River 2-1/2 miles from the North Dakota border, just north of Nohly, Richland County, Montana.

Date of Construction: 1913

Present Owner: Burlington Northern Railroad
176 East Fifth Street
St. Paul, Minnesota 55101

Present Use: Railroad Bridge/Vehicular Bridge

Significance: The Great Northern Railroad bridge over the Missouri River just above the Montana/North Dakota border was erected in 1913. The renowned engineering firm of Waddell & Harrington of Kansas City, Missouri served as principal consultants for the design of the structure. The main feature of this bridge is the vertical lift span, a 296-foot riveted Parker through truss span. When completed in 1913, this vertical lift span was the longest in existence, and according to J.A.L. Waddell, the bridge had the second largest clear opening of any movable bridge in the world. This bridge, alternately named the Snowden Bridge and the Nohly Bridge for small nearby railroad stations in Roosevelt and Richland counties, respectively, is a descendant of the Halstead Street Bridge constructed in Chicago, Illinois in 1894 and designed by J.A.L. Waddell. The firm of Waddell & Harrington improved the design of the vertical lift concept and was granted several patents for these designs beginning in 1909. The bridge was constructed by the Union Bridge & Construction Company of Kansas City, Missouri with steel fabricated by the American Bridge Company at its Gary, Indiana works. The Snowden Bridge consists of three 267-foot riveted Parker through truss spans in addition to the vertical lift span. The superstructure is supported by concrete piers. In 1925, the bridge, which carries one set of tracks, was modified by the addition of timber approach ramps and a plank deck to accomodate local vehicular traffic. A signal system was established and tolls were

collected from both motorized and horse-drawn vehicles. There is no written record of the number of times the lift span was ever operated, but it was rare because of the decline in navigation on the Missouri River. When the Fort Peck Dam was being built in the 1930's, there was need to lift the bridge to allow barges carrying construction materials upstream to pass. The machinery for operating the lift was retired in 1943, but much of the original hoist mechanism is still in place. A similar Waddell & Harrington vertical lift bridge was built for the Great Northern in 1915 over the Yellowstone River in North Dakota, just east of Fairview, Montana. The Snowden Bridge was built to carry rail traffic from the Great Nothern main line to the Northern Pacific at Glendive. The Montana and North Dakota Highway Departments are currently planning a new highway bridge in the area so that the Snowden Bridge may be closed to vehicular traffic.

Transmitted by:

Kevin Murphy, Historian HAER, 1984; from data compiled by Greg Fitzsimons and Fredric L. Quivik, 1979

ADDENDUM TO
SNOWDEN BRIDGE
(NOHLY BRIDGE)
Spanning Missouri River
Nohly Vicinity
Richland County
Montana

HAER No. MT-27

XEROGRAPHIC COPIES OF COLOR TRANSPARENCIES

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
Washington, D.C. 20013

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